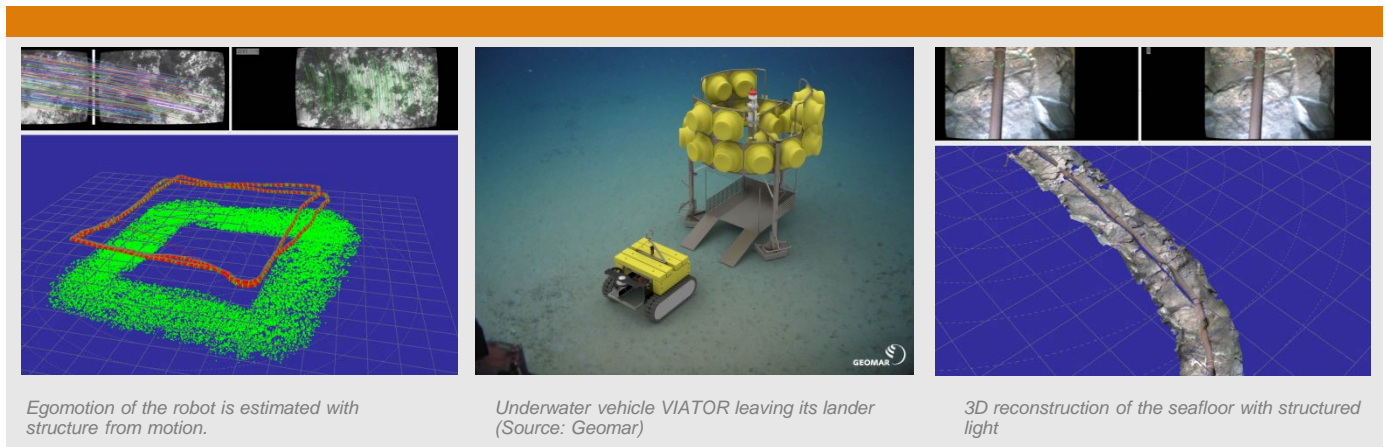


# ROBEX

## Robotic Exploration in Extreme Environments



### Robotic exploration in extreme environments

The Helmholtz Alliance ROBEX deals with the research of methods for the development of robotic systems in extreme environments. The application domains moon and deep-sea are examined, joined and common technologies identified and developed.

ROBEX joins the major Helmholtz research centers in Germany with the leading university groups in the field of robotics in extreme environments to generate new and innovative technologies for robotic exploration.

### Project details

Aim of the Helmholtz Alliance “Robotic Exploration of Extreme Environments” ROBEX is to explore synergies between two up to now unrelated research fields that deal with similarly extreme environments: the deep sea and the Moon. We will create an overarching alliance for identification and development of joint technologies and expect that the combination of these two complementing technological and scientific expertise will lead to substantial advancements in both research fields.

In the context of the ROBEX project, the DFKI Robotics Innovation Center develops – amongst other things – intelligent algorithms for the autonomous navigation of tracked underwater vehicles in unknown territory. For this purpose, methods from space robotics and terrestrial robotics are adapted to the conditions of underwater vehicles and are further developed in order

to be able to autonomously explore an area relevant for Marine Research as part of a deep sea demo mission.

Duration: 10/2012 – 09/2017

### Partners:



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